

LWTTF

(Large Wind Turbine Test Facilities)

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LWTTF

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8 MW dynamometer test facility

70 m blade test facility

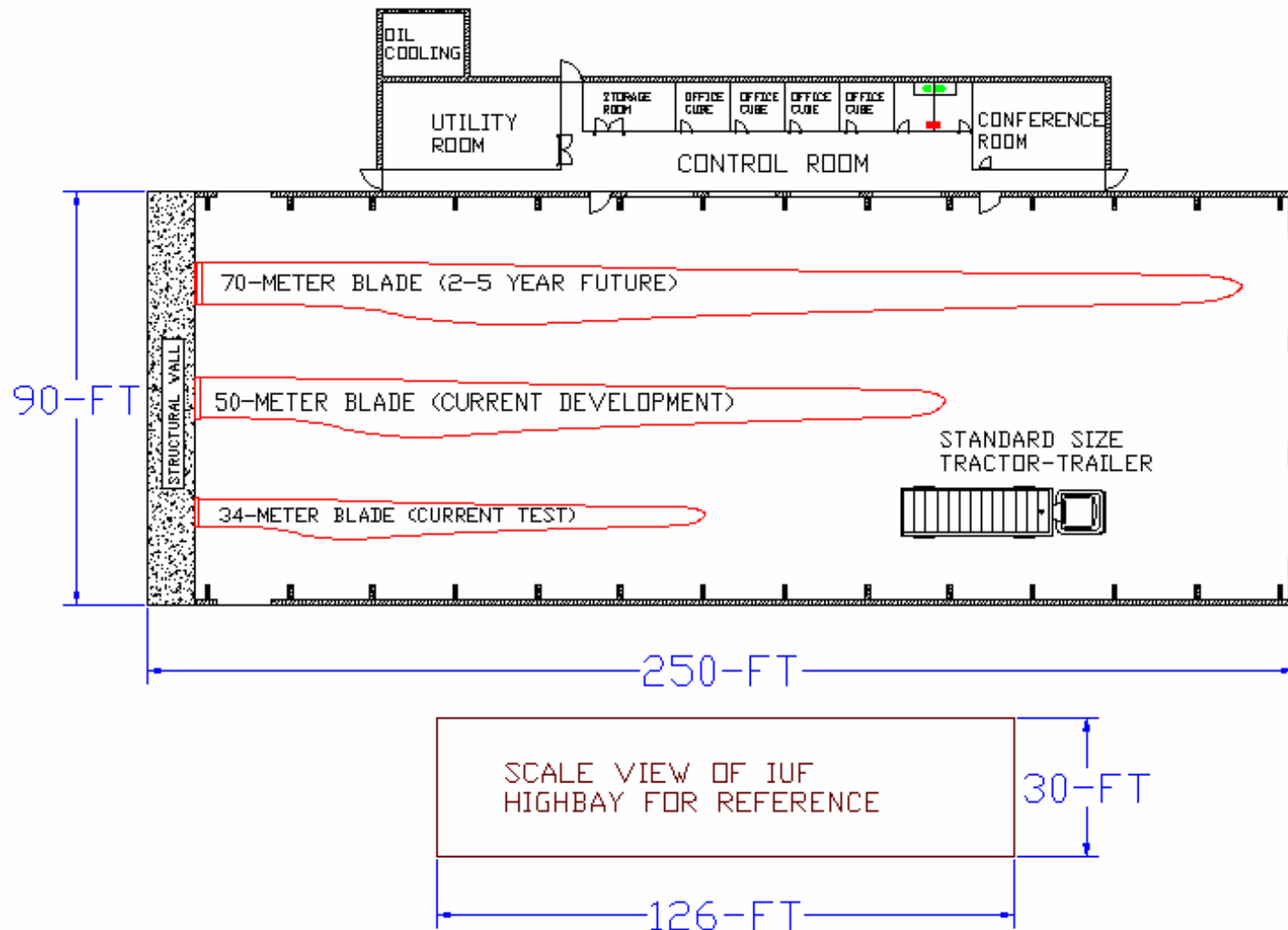
NWTC electrical infrastructure

\$23.4M FY'05-FY'08

\$500K Program funds

\$22.9M requires Congressional line item

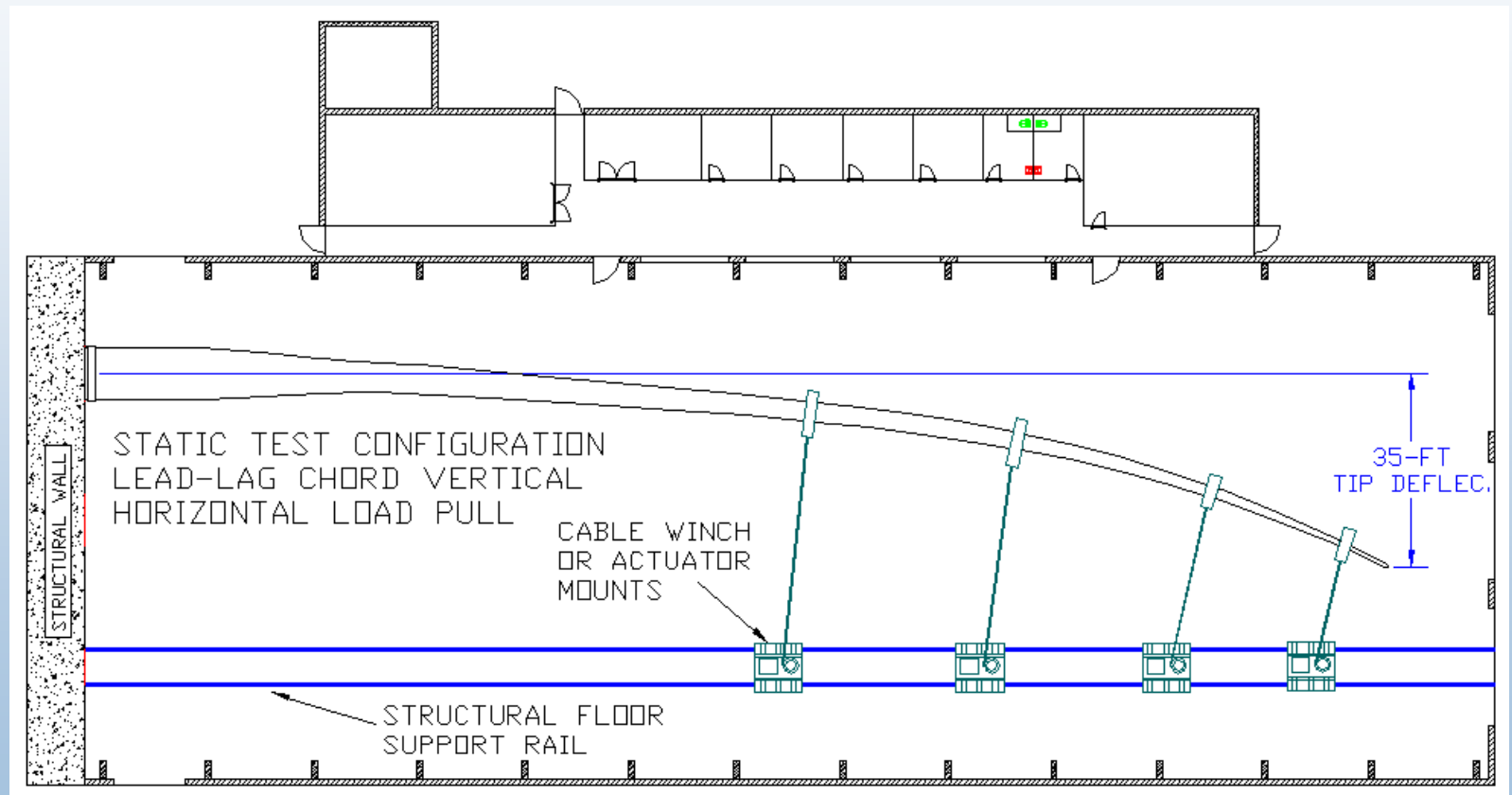
70-m Blade Test Facility Concept



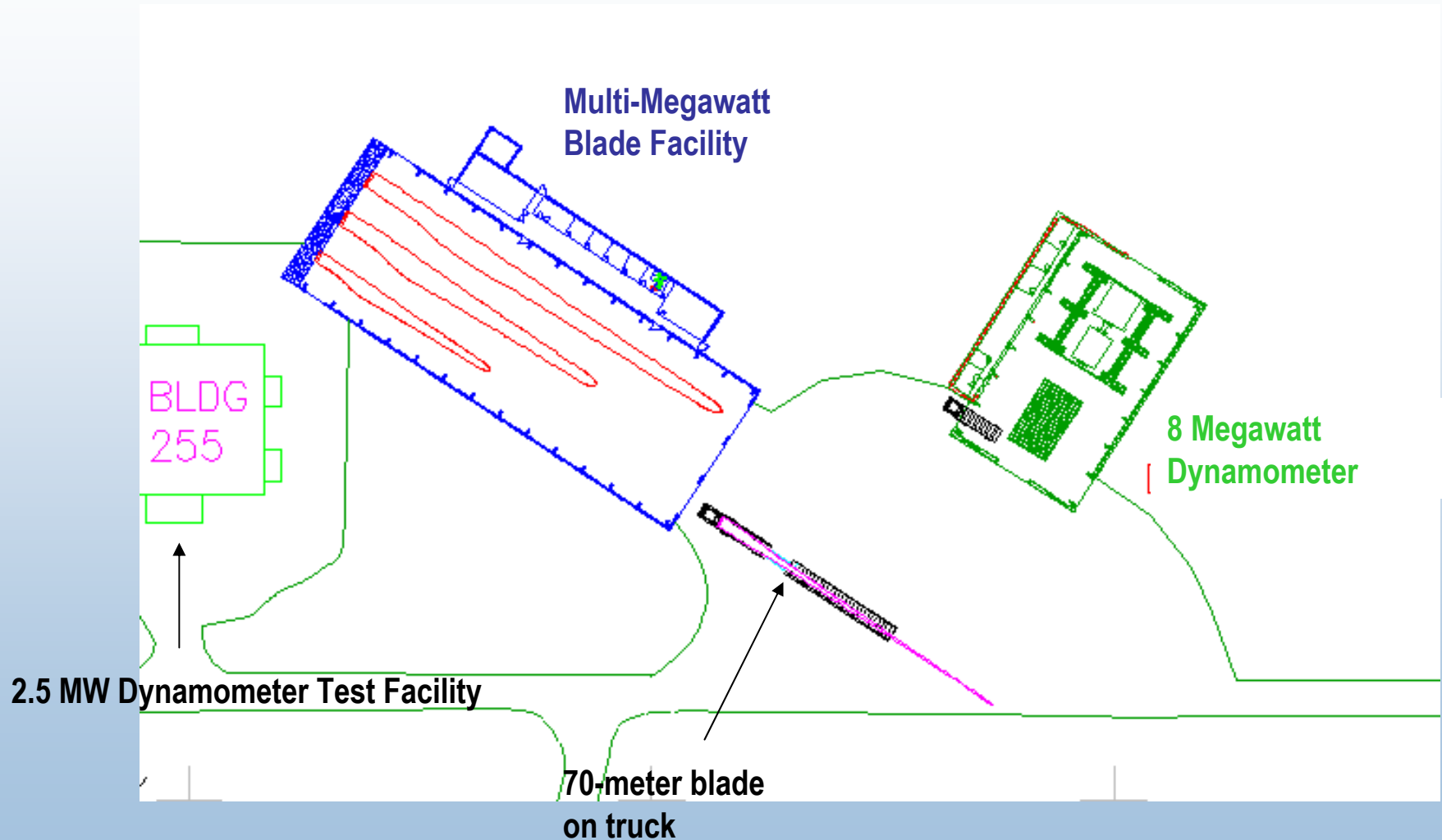
70-m Blade Test Facility

Static Testing

Deflections Set 90-ft Width Requirement



Layout of Future Multi-Megawatt Test Facilities

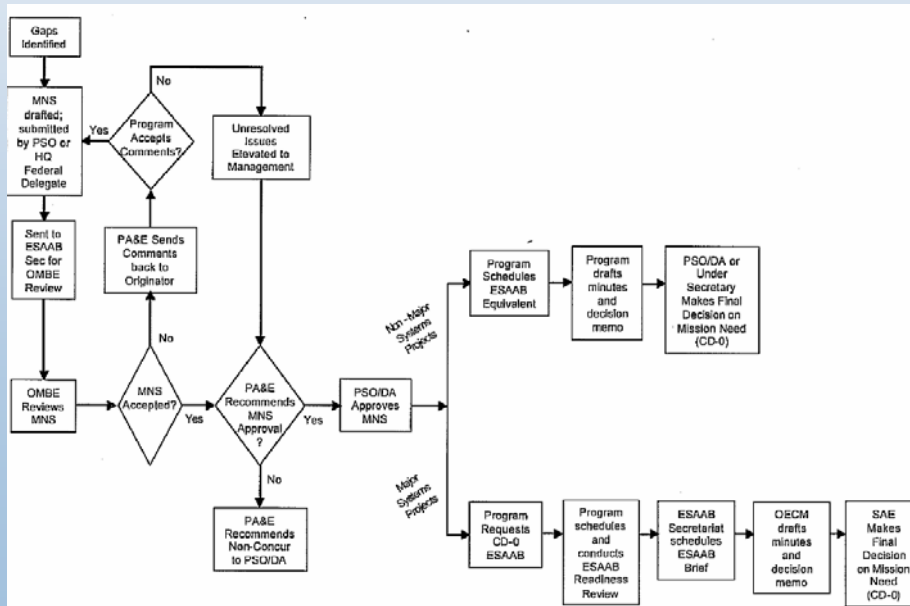


Facility Construction Line Item (CLI) Process

- CD0 (Approve Mission Need, MNS)
- OMB-300 (Budget document)
- CDR (Conceptual Design Report) ← **Current Activity**
- CD1 (Approve preliminary baseline range)
- CD2 (Approve performance baseline)
- CD3 (Approve start of construction)
- CD4 (Approve start of operations)

LWTTF Step 1: Approve Mission Need

- Mission Needs Statement (MNS)
 - NREL worked closely with DOE Wind & Hydropower Program management to assist in preparation of MNS for DOE EERE management review
 - Defined clear need for new facility and high-level EERE management acknowledgment of need



- Required approval up through DOE Assistant Secretary
 - Wind & Hydropower Program
 - Office of Engineering & Construction Management (OECM)
 - Office of Program Analysis & Evaluation (PA&E)
- Signed by David Garman 6/04

LWTF

Budget Approval Process

- Budget Document OMB-300
 - NREL worked closely with DOE Golden Field Office to assist in preparation of OMB-300 for OMB review
 - Defined rationale for expending funds to build new facility
 - Brief description of project and analysis of and justification for proposed facility
 - Breakdown of budget over construction period
 - Alternatives to proposed facility
 - Process of getting a funding request into '06 budget cycle
 - Required approval up through DOE Office of Information and Business Management Systems
 - Preliminary review by Robert Sandoli (EERE OMB examiner) 10/04

LWTTF Step 2: CDR

- Conceptual Design Report (CDR)
 - FY04+FY05 Wind Program funds, \$500K
 - Select an engineering firm to start LWTTF conceptual design and produce CDR
 - Competitive procurement process underway
 - Acquisition strategy recently approval by DOE Golden
 - Competitive bids requested through Federal Business Opportunities Notification process
 - CDR will be an engineering document
 - Cost estimate
 - Preliminary design
 - Alternatives analysis
 - Site selection
 - Life cycle cost analysis
- Currently working on this process

Remaining Critical Decisions

- CD1, CD2, CD3, CD4
 - Highly dependent:
 - On outcome of FY'06 budget
 - On findings of CDR
 - Each CD is executed serially
 - Depends on successful completion of prior CD's
- Expected completion end of FY'08?